

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above amendment and discussion below.

Applicant's invention has been discussed in the amendment filed December 23, 2002 which is incorporated herein by reference with the following comments being made in light of the new rejection.

Claims 1-3 have been rejected under 35 USC § 103 as unpatentable over Ito et al. (Japanese Patent 8-262190) in view of the combination of U.S. Nuclear Regulatory Commission Generic Letter 78016 and Brammer (U.S. Patent No. 4,053,356) as indicated at Item 2 on page 2 of the Patent Office Action. It is to be noted that the reference to Aoki, referred to at line 3 of Item 2, has been clarified as being Ito et al. as indicated in the Office Action of April 29, 2003 which re-set the date for response.

The reference to Ito et al. (Japanese Patent 8-262190) provides a method for treating a nuclear reactor pressure vessel in which a temporary opening is provided in the roof of the building by using crane equipment provided on a frame bridging the nuclear reactor building. The pressure vessel in the nuclear reactor building is lifted out through the opening.

Applicants submit that there is no disclosure in Ito et al. concerning a protective measure provided in the nuclear reactor well which is formed of a penetrating path using a variable arm length guide 15 for guiding the nuclear pressure vessel through the penetrating path and extending toward the nuclear

reactor building roof with the operation floor forming an upper face with respect to the sidewall for the used fuel pool.

The Nuclear Regulatory Commission Generic Letter 78016, which serves as a secondary reference, has a disclosure that, when using heavy loads near the spent fuel storage pool, there is a requirement to prevent dropping of the heavy loads onto the fuel storage pool. However, there are no specific measures suggested and the claimed invention of independent Claim 1, as amended, provides a measure which is not disclosed by either Ito et al. or the Generic Letter 78016.

The reference to Brammer (U.S. Patent No. 4,053,356) has a disclosure wherein a table 28 with a plurality of truncated locating cones 34 provided on a flange of the nuclear reactor pressure vessel when taking out a used fuel assembly from the reactor. The used fuel assembly in the reactor is carried out by crane 46 through the cones 34. The crane includes a mast 54 extending downward and a telescopic guide tube 56 which slides within the mass 54 in the vertical direction. At the lower end of the guide tube 46, there is a gripper 62 which holds the used fuel assembly in the reactor. The telescopic guide tube moves smoothly in the vertical direction through rollers 48 provided in the mast 54. A used fuel assembly held by gripper 62 is moved above the table 28 by moving the telescoping guide tube 56 upward through the truncated cones 34.

Brammer only discloses that the table 28 has a plurality of truncated cones for driving the used fuel assembly on the frame in the nuclear reactor pressure vessel. However, there is no suggestion of a means to prevent the used

fuel assembly from falling down on the used fuel storage pool through the use of the truncated cones 34. The truncated cones 34 are located near the frame in the nuclear reactor pressure vessel and if the upper ends of the truncated cones 34 extend up to the water level in the nuclear reactor well, which is the same water level as the used fuel pool, then when moving a used fuel assembly from the reactor into the used fuel pool, the used fuel assembly, which emits strong radiation from the nuclear fuel remaining inside, must be moved through the space above the water level. Such treatment of the used fuel assembly is strongly prohibited in the field of nuclear reactors.

It is for this reason that the movement of the used fuel assembly is always performed under the water which functions as a radiation shield material. Furthermore, when moving the used fuel assembly to the used fuel pool, an engineer in the nuclear reactor field must avoid extending the truncated cones 34 upward above the upper face of the operation floor. Thus, one skilled in the art never contemplates extending the truncated cones 34 of the '356 reference used for moving the used fuel assembly upward above the upper face of the operation floor from the nuclear reactor well. This is evident from the requirements of the Generic Letter 78016 from the Nuclear Regulatory Commission discussed above, which requires a countermeasure for preventing the heavy loads from dropping into the used fuel pool when moving.

Additionally, Brammer has rollers for guiding the telescoping guide tube in the mass 54 but not in the truncated cones 34.

Using the protective measures defined by the present invention in the modified independent Claim 1, the nuclear reactor pressure vessel can be smoothly moved vertically and it is not possible for the vessel to fall down onto the used fuel pool side during movement. More specifically, by using the variable arm length guide, as claimed, both the nuclear reactor pressure vessel around which a radiation shielding body is attached at the time of the movement and a nuclear reactor pressure vessel with no radiation shielding body during movement can be smoothly moved vertically while being protected from a possible fall by the protective measure according to the present invention, as defined by amended Claim 1.

Therefore, applicants respectfully submit that no combination of the references of record yield the present invention, even if those references could be combined, and that amended independent Claim 1 specifically sets forth the nature of the method of the present invention in a manner which is supported by the Specification and directed toward the improvement over the prior art. For these reasons, applicants respectfully request that this application containing Claims 1, 3 and 13 be allowed and passed to issue.

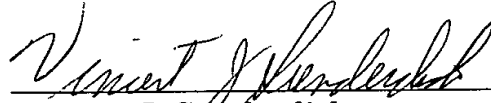
If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

please charge any deficiency in fees or credit any overpayments to Deposit
Account No. 05-1323 (Docket #381NP/50366).

Respectfully submitted,

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Vincent J. Sunderdick
Registration No. 29,004
For James F. McKeown
Registration No. 25,406

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844

JFM/VJS/acd
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